BEST AVAILABLE COPY

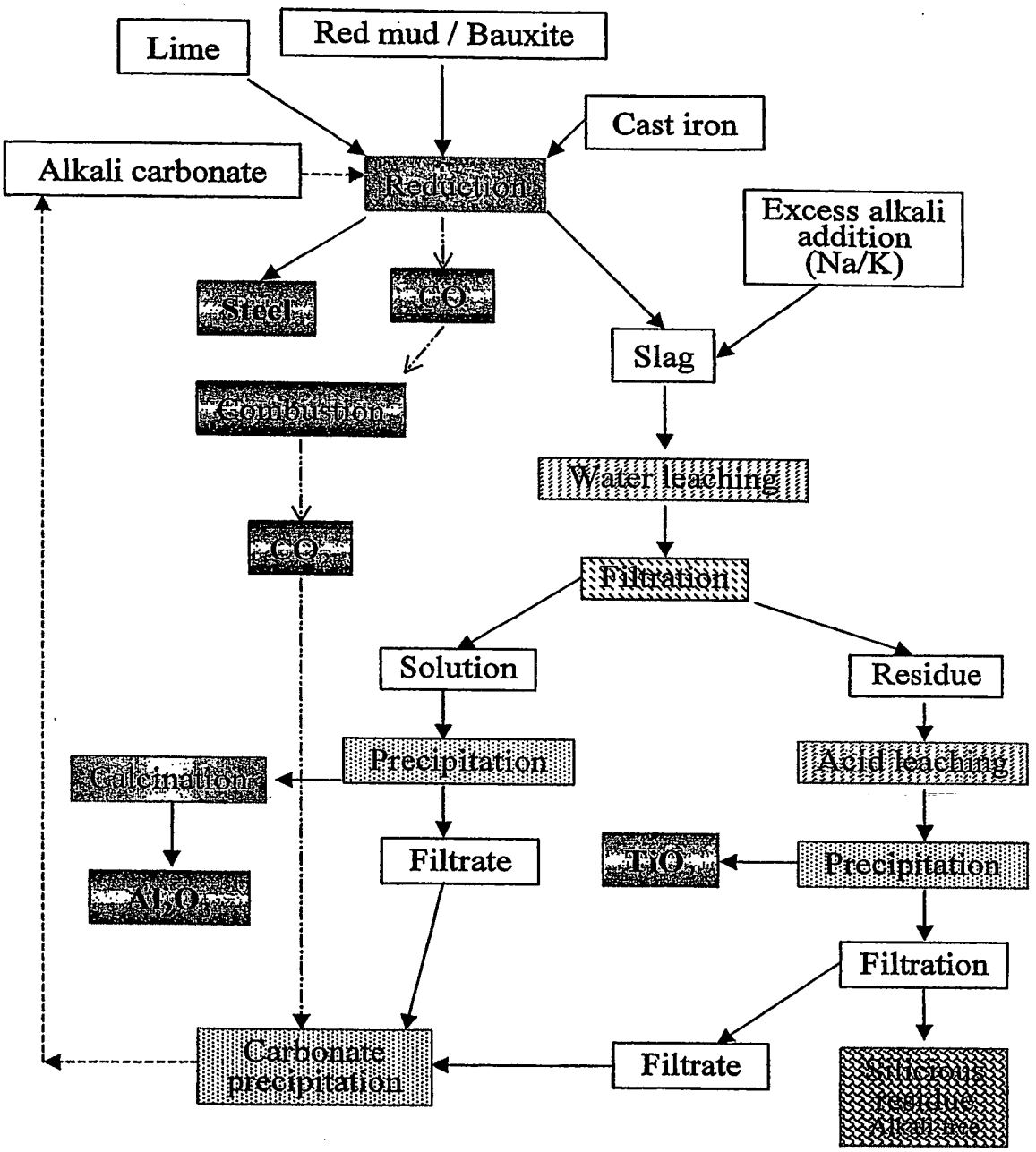

FIGURE 1a

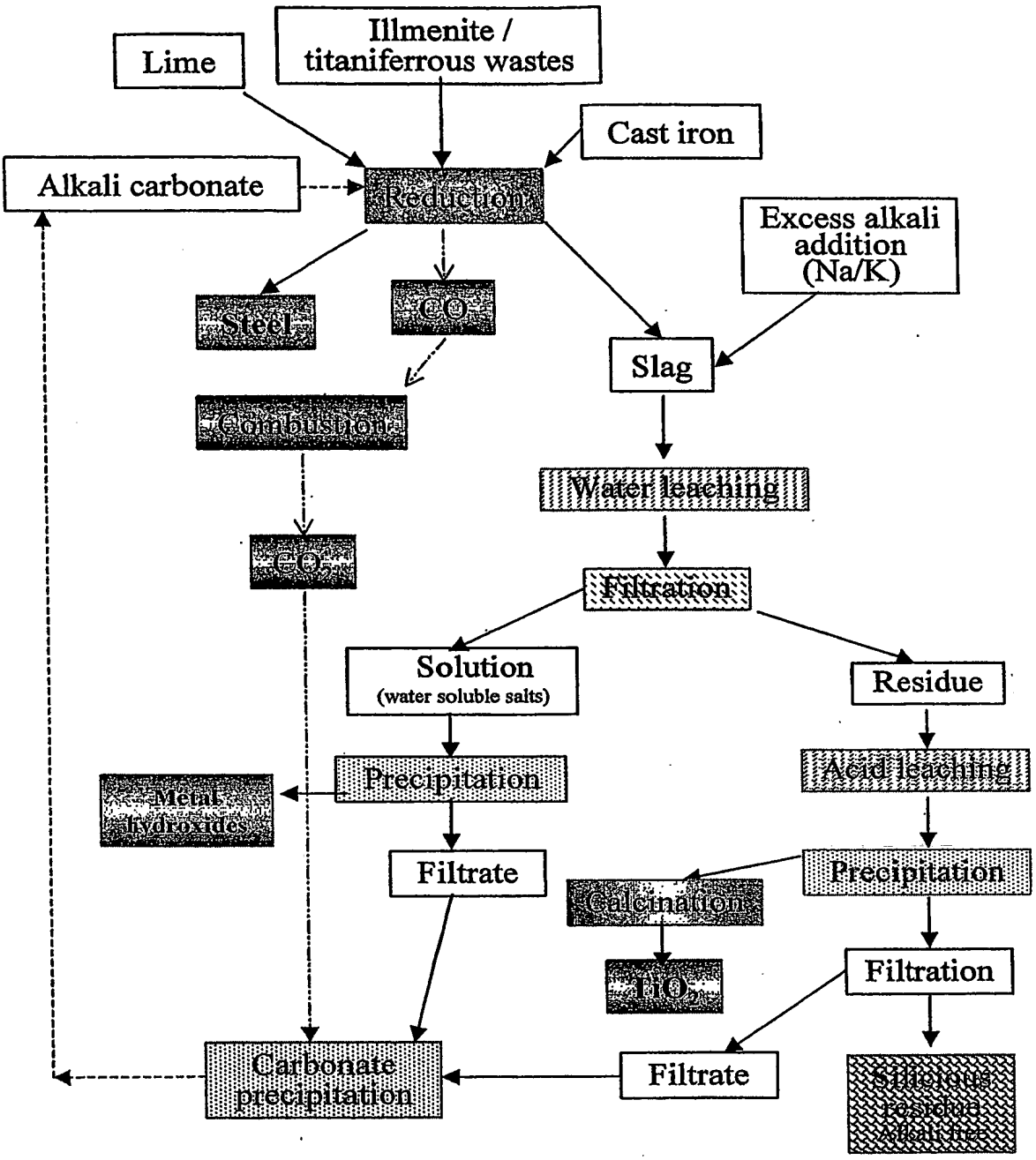
Lime
Illmenite / titaniferrous wastes
Cast iron
Alkali carbonate
Reduction
Excess alkali addition (Na/K)
Steel
CO
Slag
Combustion
Water leaching
CO2
Filtration
Solution (water soluble salts)
Residue
Precipitation
Acid leaching
Metal hydroxides
Filtrate
Precipitation
Calcination
TiO2
Filtration
Carbonate precipitation
Filtrate
Siliceous residue

FIGURE 1b

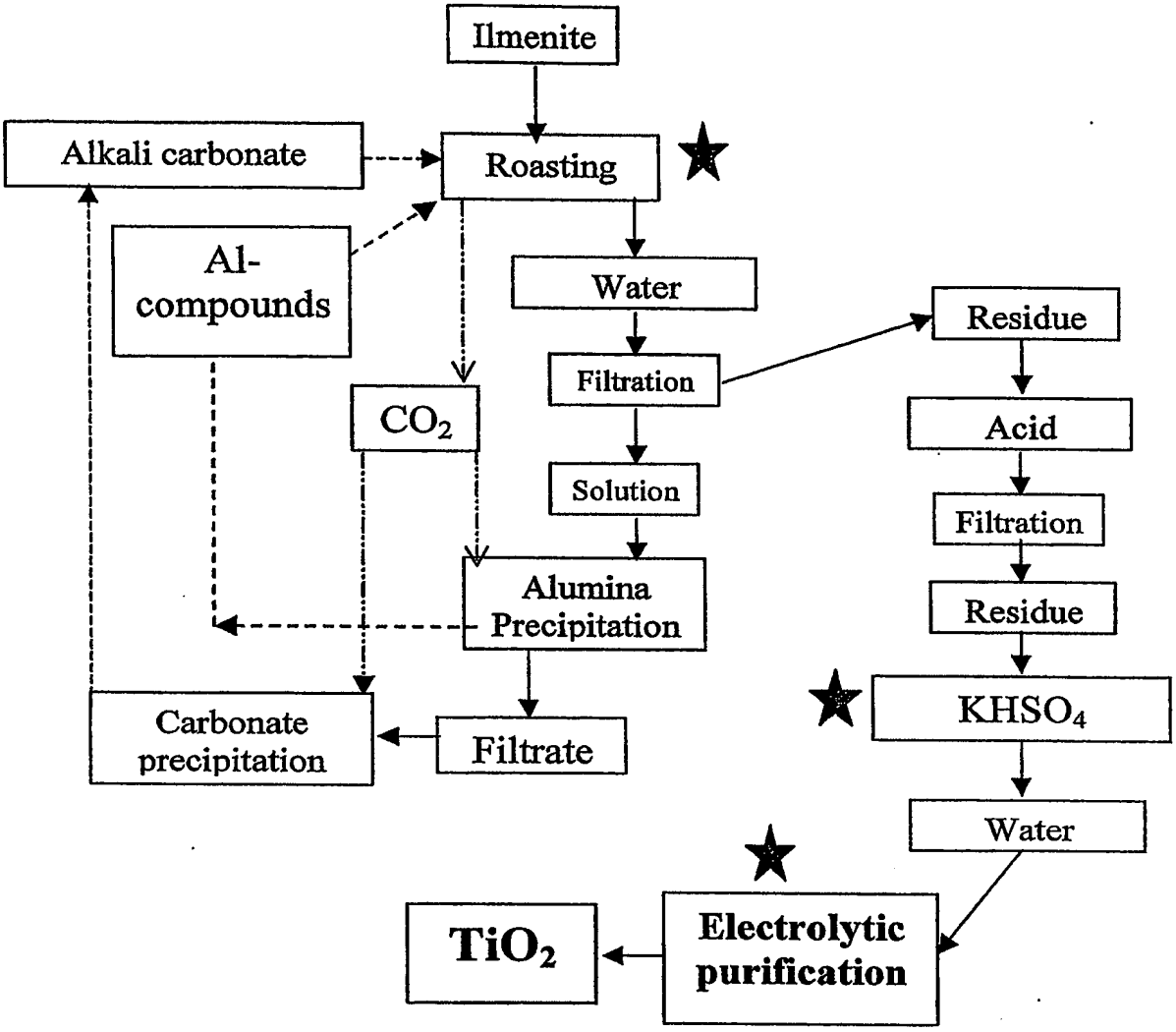
Ilmenite
Alkali carbonate
Roasting
Al-compounds
Water
Residue
Filtration
CO_2
Acid
Solution
Filtration
Alumina Precipitation
Residue
$KHSO_4$
Carbonate precipitation
Filtrate
Water
TiO_2
Electrolytic purification

FIGURE 2